

CRWMS/M&amp;O

# Determination of Importance Evaluation Cover Sheet

QA: L

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1. DIE Title Determination of Importance Evaluation for the Subsurface Exploratory Studies Facility (SCPB: N/A)	
2. Document Identifier (DI) Number (include revision number) BAB000000-01717-2200-00005 Rev 06	3. DIE Category (Check one) <input type="checkbox"/> I <input type="checkbox"/> II <input checked="" type="checkbox"/> III

Signatures on this document represents signers' acknowledgement that the applicable procedure has been read, understood and complied with.

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23. Remarks This Category III DIE evaluates design and construction activities associated with the subsurface Exploratory Studies Facility with respect to their potential for adverse impact to site characterization data, the waste isolation capabilities of a potential geologic repository at the Yucca Mountain site, and/or other Q-List items that have been constructed or installed at the Yucca Mountain site. Appropriate QA controls are established to prevent or limit such impacts. This DIE is required to be used as input to the applicable implementing documents for the evaluated activities.					
This DIE will be distributed as a controlled document in accordance with procedure QAP-6-1.					
<i>* Except Section 10. JMS 1/23/97</i>					

# Determination of Importance Evaluation Revision Record

DIE Title <b>Determination of Importance Evaluation for the Subsurface Exploratory Studies Facility</b>		
DI Number (include revision number) BAB000000-01717-2200-00005 Rev 06		
Rev No.	Date	Description of Revision
00	06/28/94	Original Issue
01	08/25/94	Revised/reissued entire analysis; deleted WIEs and TIEs as attachments (Atts. II, III, IV, and VI);
		changed Atts VII and VIII to II and III respectively and added three pages to Att II to reflect add'l
		TFM details; deleted use of two inputs (one TIE and one WIE) whose information has been captured
		in other revised inputs; responded to minor revisions to WIEs and TIE, as well as clarification of
		controls and basis information as result of performance-based QA audit findings. The summary of
		conclusions (previously 11.3, Evaluation of Activities) was deleted, as it was redundant to 10.13
02	09/07/94	Clarified requirements/bases as a result of ID review of Specification Section 01501. This revision
		clarifies the water balance accuracy requirements in the bases and the resulting Requirement, diesel
		requirements to remove low sulfur fuel since it is already mandated by federal law, TBM excavation
		requirement since the use of qualified operators performing excavation according to specified line
		and grade tolerances yields the required QA control of excavation methods.
03	12/20/94	Clarified Swellex water removal requirement; evaluated limited pneumatic drill use; clarified
		transition zone discussion and updated references.
04	02/02/95	Revised based on revised input documents; clarified water tracer concentration, diesel use reporting,
		and drill-and-blast reporting requirements; added two requirements to minimize future potential test
		and construction impacts. Updated ESFDR references.
05	07/14/95	Entire document formatted in accordance with NLP-2-0 Rev 01. As such, section numbers changed
		and test interference and waste isolation evaluations are included in DIE. Revision bars are not used
		since the entire document has changed. Other changes include:
		a) Changed title and added Table of Contents;
		b) Revised scope of document to include Topopah Spring Loop, including Starter Tunnel;
		c) Identified documents superseded by this revision of this document;
		d) Expanded methodology section;
		e) Revised to include new CI structure;

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05 (Con't)		f) Deleted QA classification from DIE (classification analyses are now performed as separate
		discrete evaluations for each Configuration Item [CI], see references 14.13-14.17);
		g) Deleted evaluation of surface CIs (Surface Conveyor and Surface Communications) as they are
		to be covered in applicable surface DIE(s);
		h) Modified description of CIs;
		i) Requirements Changes (Requirements renumbered and modified to refer to TS Loop rather than
		North Ramp, as appropriate, changes listed below by new requirement number):
		1) Specific 10CFR60.72 records requirement that was previously implemented through other
		requirements;
		2) Revised list of TBM maintenance requirements based on OPI and A/E review;
		3) Included tracer requirements that were previously listed in Starter Tunnel DIE. Also,
		requirement was modified (QA procedure requirements) and clarified (surv frequency);
		4) Change to require A/E approval of blast plans and blast patterns (terminology change and
		clarification);
		5) Clarified requirement for blast size and to agree with modified requirement 4;
		6) Eliminated 3 meter criterion in tunnel based on A/E and TCO feedback; modified
		requirement for TCO approval for test support area grouting;
		7) Modified requirement (limit expressed as average with surveillance performed once per
		shift); clarified water limit for alcoves; changed TFM Management Plan to
		TFM procedure;
		8) Changed TFM Management Plan to TFM procedure;
		9) Listed specific testing requirements; further clarified diesel emission minimization activities;
		eliminated redundancy in requirement; required DPM exhaust conditioning beyond
		Station 28+05m; allowed diesel use for TS Loop;
		10) Changed TFM Management Plan to TFM procedure;

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05 (Con't)		11) Editorial change on equipment listing;
		12) No additional change (except as noted above for all requirements);
		13) Clarified ESF TCO notification;
		14) Clarified requirement (combined two subrequirements);
		15) Modified requirement (requires maintenance at prescribed frequency for equipment with
		fluids of concern; eliminated QA alarm procedure as its intent is bounded by other req'ts);
		16) Minor editorial change;
		17) Minor editorial change;
		18) Previously listed requirement in Starter Tunnel DIE; clarified scope of requirement
		Also, classification related requirements were deleted (they are now found in the applicable CI
		classification analysis) and deleted pneumatic pathways related requirement since the requirement
		has been satisfied and is no longer applicable;
		j) Editorial changes made throughout the document;
		k) Updated references;
		l) Updated ESFDR cites;
		m) Updated Acronyms and TFMs;
		n) Deleted QAP-2-3 checklists;
		o) "deleted" requirements document recommendation as they have been previously
		transmitted to the document authors and there are no new recommended changes
06	02/07/97	Revision 06 revised the hydrologic evaluations contained in Section 11.1; added
		six additional attachments to support the revised hydrologic evaluations; updated
		Main Drift and South Ramp slopes; updated design information, including
		information related to test alcoves and the subsurface ventilation system; updated
		test information; generally exempted information pertaining to the use of
		temporary items/materials (not permanently emplaced/committed to the subsurface

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06 (Con't)		ESF environment or otherwise controlled per Section 13.2 of this DIE) from
		reporting in accordance with procedure YAP-2.8Q; specifically exempted
		information pertaining to the use of the gaseous tracer sulfur hexafluoride from
		reporting in accordance with procedure YAP-2.8Q; revised the text to reflect that
		the TBM is no longer designated as a separate Configuration Item; added
		descriptions of ventilation system tests using sulfur hexafluoride that have been and
		are planned to be performed; revised the text to indicate that chlorinated, untraced
		water may be used for drinking water, ice, and hand wash stations underground;
		updated the approved TFM listing (Attachment II); revised the water controls to
		require strictly location-based (i.e., independent from TBM advance) water
		reporting after TBM hole-out at the South Portal; changed the required frequency
		for water reporting, in both the TS Loop and alcoves, from once-per-shift to once-
		per-day, for days when water is used; enhanced the requirement to trace
		construction water used underground to additionally require that all batches of
		traced water be mixed, sampled, analyzed, and found to be within the prescribed
		lithium bromide concentration limits prior to release for use; clarified the reporting
		requirement for water used in alcoves; added a specific discussion concerning why
		additional controls on peak particle velocity during drill-and-blast excavation are
		not required based on test interference concerns; acknowledged Field Work
		Packages, in addition to Job Packages and Test Planning Packages, as approved
		test implementation documents; reflected the reorganization of the Surface-Based Testing
		Coordination Office (SBTCO) and the ESF Test Coordination Office (ESF TCO)
		into one organizational unit, the Test Coordination Office (TCO); reviewed use
		of the words "surveillance" and "inspection" in view of their precise QA program
		definitions, and made changes as appropriate; incorporated five existing Category II



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